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Glu Gln Val Leu Lys Asp Leu Lys Gln Leu Trp Glu Thr Lys Val Leu
35 40 45

Ile Thr Ile Ala Thr Ile Asp Ile Ile Asp Asn Ser Ile Gln Ser Pro
50 55

Leu Phe Thr Leu Gln Leu Pro His Ser Leu His Gln Thr Leu Gln Ser
65 70 75 80

Ser Thr Ala Ile Leu Val Ile Ile Ala Gly Asp Thr Leu Ile Ser Ile
85 90

Pro Gly Tyr Pro Ile His Val Pro Ala Gly Val Thr Leu Gln Thr Val
115 120 125

Ser Gly His Leu Tyr Lys Val Asn Val Pro Ile Met Val Thr Glu Thr
136 135 140

Ser Gly Arg Ala Gly Ile Leu Gln His Pro Ile Gln Gln Val Phe Gin
145 150 155 160

Gln Leu Gly Gln Pro Ser Val Ile Gln Thr Ser Val Pro Gln Leu Asn
165 170 175

Pro Trp Ser Leu Gln Ala Thr Thr Glu Lys Ser Gln Arg Ile Glu Thr
180 185 190

Val Leu Gln Gln Pro Ala Ile Leu Pro Ser Gly Pro Val Asp Arg Lys
195 200 205

His Leu Glu Asn Ala Thr Ser Asp Ile Leu Val Ser Pro Gly Asn Glu
210 215 220

His Lys Ile Val Pro Glu Ala Leu Leu Cys His Gln Glu Ser Ser His
225 230 235 240

Tyr Ile Ser Leu Pro Gly Val Val Phe Ser Pro Gln Val Ser Gln Thr
245 250 255

Asn Ser Asp Val Glu Ser Val Leu Ser Gly Ser Ala Ser Met Ala Gln
260 265 270

Asn Pro His Arg Val Asn Leu Ile Phe Pro Ile His Val Asn Leu His
275 280 285

Val His Val Thr Asp Ile Asn Leu His Ile Leu Asp Asn Asn Met Tyr
290 295 300

Val Tyr Asp Ser Val Asp Val Ile Asn Ile Asn Val His Pro Ser Asn
315 320 325

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11

340

Gly Asp Thr Ser Ser Asn Glu Glu Ile Gly Ser Thr Arg Asp Ala Asp
355 360 365

Glu Asn Glu Phe Leu Gly Asn Ile Asp Gly Gly Asp Leu Lys Val Pro
 370 375 380

Glu Glu Glu Ala Asp Ser Ile Ser Asn Glu Asp Ser Ala Thr Asn Ser
 385 390 395 400

Ser Asp Asn Glu Asp Pro Gln Val Asn Ile Val Glu Glu Asp Pro Leu
 405 410 415

Thr Asp Asn Val Ile Val Cys Gln Tyr Asp Lys Ile His Arg Ser Lys
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Asn Lys Trp Lys Phe Tyr Leu Lys Asp Gly Val Met Cys Phe Gly Gly
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Arg Asp Tyr Val Phe Ala Lys Ala Ile Gly Asp Ala Glu Trp
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Gly Val Cys Arg Pro Asn Gly Leu Lys Leu Asn Pro Pro Gly Leu Arg
35 40 45

Glu Phe Pro Ser Gly Ser Ser Ser Thr Ser Ser Thr Pro Leu Ser Ser
50 55 60

Pro Ile Val Asp Phe Tyr Phe Ser Pro Gly Pro Pro Ser Asn Ser Pro
65 70 75 80

Leu Ser Thr Pro Thr Lys Asp Phe Pro Gly Phe Pro Gly Ile Pro Lys
85 90 95

Ala Gly Thr His Val Leu Tyr Pro Ile Pro Glu Ser Ser Asp Ser
100 105 110

Pro Leu Ala Ile Ser Gly Gly Glu Ser Ser Leu Leu Pro Thr Arg Pro
115 120 125

Thr Cys Leu Ser His Ala Leu Leu Pro Ser Asp His Ser Cys Thr His
130 135 140

Ile Thr Ile Asp Val Ile Pro Ile Asp Ile Val Asp Ile Ile Ile Ile
145 150 155 160 165 170 175 180

Glu Ser Leu Gly Phe Glu Ser Asp Ile Ile Gln Phe Gln Tyr Phe
165 170 175

Asp Ile Asp Tyr Ile
185 190 195 200 205 210 215 220 225 230 235 240 245 250 255 260 265 270 275 280 285 290 295 300

Ser Arg Asn Lys Glu Met Pro Ile Asp Gln Lys Ser Leu Asn Lys Cys
210 215 220

Ser Leu Asn Tyr Ile Cys Glu Lys Leu Glu His Leu Gln Ser Ala Glu
225 230 235 240

Asn Gln Asp Ser Leu Arg Ser Leu Ser Met His Cys Leu Cys Ala Glu
245 250 255

Glu Asn Ala Ser Ser Phe Val Pro His Thr Leu Phe Arg Ser Gln Pro
260 265 270

Lys Ser Gly Trp Ser Phe Met Leu Arg Ile Pro Glu Lys Lys Asn Met
275 280 285

Met Ser Ser Arg Gln Trp Gly Pro Ile Phe Leu Lys Val Leu Pro Gly
290 295 300

Gly Ile Leu Gln Met Tyr Tyr Glu Gln Gly Leu Glu Lys Pro Phe Lys
305 310 315 320

Glu Ile Gln Leu Asp Pro Tyr Cys Arg Leu Ser Glu Pro Lys Val Glu
325 330 335

Asn Ile Ser Val Ala Gly Lys Ile His Thr Val Lys Ile Glu His Val
340 345 350

Ser Tyr Thr Glu Lys Arg Lys His Ser Lys Thr Glu Val Val His Glu
355 360 365

Ile Asp Ile Ile Glu Met Leu Ile Lys Leu Ile Thr Val Tyr Ile Asp
370 375 380 385 390

Phe Leu Arg Ile Leu Thr Thr Val Glu Glu Glu Leu Met Lys Leu Pro
395 400 405 410 415

Ala Val Val Ile Ile Ile Tyr Ile Asp Tyr Ile Glu Glu Ile Ile Leu
420 425 430 435 440

Val Glu Ser Ala Val Ile Thr Gln Ile Tyr Cys Leu Cys Phe Val Asn
435 440 445

Gly Asn Leu Glu Cys Phe Leu Thr Leu Asn Asp Leu Glu Leu Pro Lys
450 455 460

Arg Asp Glu Ser Tyr Tyr Glu Lys Asp Ser Glu Lys Lys Gly Ile Asp
465 470 475 480

Ile Leu Asp Tyr His Phe His Lys Cys Val Asn Val Gln Glu Phe Glu
485 490 495

Gln Ser Arg Ile Ile Lys Phe Val Pro Leu Asp Ala Cys Arg Phe Glu
500 505 510

Leu Met Arg Phe Lys Thr Leu Tyr Asn Gly Asp Asn Leu Pro Phe Ser
515 520 525

Leu Lys Ser Val Val Val Gln Gly Ala Tyr Val Glu Leu Gln Ala
530 535 540

Phe Val Asn Met Ala Ser Leu Ala Gln Arg Ser Ser Tyr Ala Gly Ser
545 550 555 560

Leu Arg Ser Cys Asp Asn Ile Arg Ile His Phe Pro Val Pro Ser Gln
565 570 575

Trp Ile Lys Ala Leu Trp Thr Met Asn Leu Gln Arg Gln Lys Ser Leu
580 585 590

Lys Ala Lys Met Asn Asn Asn Ala Tyr Leu Gly Ile Leu Thr Ala Lys
595 600 605

Asp Asn Ile Ile Val Ile Ala Val Val Asp Val Asn Lys Tyr Ile
610 615 620

Asp Ala Tyr Glu Ala Val Val Trp Ile Asp Asn Leu Pro Asp Lys
630 635 640

660

665

670

Gln Phe Ser Val Pro Asp Thr Cys Ala Ser Arg Thr Glu Val Arg Ser
675 680 685

Ieu Gly Val Glu Ser Asp Val Gln Pro Gln Lys His Val Gln Gln Arg
690 695 700

Ala Cys Tyr Asn Ile Gln Pro Lys Leu Tyr Arg Ser Val Ile Glu Asp
705 710 715 720

Asp Val Ile Glu Gly Val Arg Asn Leu Phe Ala Glu Glu Gly Ile Glu
725 730 735

Gln Val Leu Lys Asp Leu Lys Gln Leu Trp Glu Thr Lys Val Leu Gln
740 745 750

Ser Lys Ala Thr Glu Asp Phe Phe Arg Asn Ser Ile Gin Ser Pro Leu
755 760 765

Phe Thr Leu Gln Leu Pro His Ser Leu His Gln Thr Leu Gln Ser Ser
770 775 780

Thr Ala Ser Leu Val Ile Pro Ala Gly Arg Thr Leu Pro Ser Phe Thr
785 790 795 800

Thr Ala Glu Leu Gly Thr Ser Asn Ser Ser Ala Asn Phe Thr Phe Pro
805 810 815

Gly Tyr Ile Ile His Val Ile Ala Gly Val Thr Leu Val Thr Val Ser
820 825 830 835 840

Gly His Leu Tyr Ile Val Asn Val Ile Ile Met Val Thr Met Thr Ser
845 850 855 860 865

Gly Arg Ala Gly Ile Leu Gln His Pro Ile Gln Gln Val Phe Gln Gln
870 875 880 885 890

Leu Gln Gln Pro Ala Ile Leu Pro Ser Gly Pro Val Asp Arg Lys His
900 905 910

Leu Glu Asn Ala Thr Ser Asp Ile Leu Val Ser Pro Gly Asn Glu His
915 920 925

Lys Ile Val Pro Glu Ala Leu Leu Cys His Gln Glu Ser Ser His Tyr
930 935 940

Ile Ser Leu Pro Gly Val Val Phe Ser Pro Gln Val Ser Gln Thr Asn
945 950 955 960

Ser Asp Val Glu Ser Val Leu Ser Gly Ser Ala Ser Met Ala Gln Asn
965 970 975

Leu His Asp Glu Ser Leu Ser Thr Ser Pro His Gly Ala Leu His Gln
980 985 990

His Val Thr Asp Ile Gln Leu His Ile Leu Lys Asn Arg Met Tyr Gly
995 1000 1005

Cys Asp Ser Val Lys Gln Pro Arg Asn Ile Glu Glu Pro Ser Asn
1010 1015 1020

Ile Pro Val Ser Glu Lys Asp Ser Asn Ser Gln Val Asp Leu Ser
1025 1030 1035

Ile Arg Val Thr Asp Asp Asp Ile Gly Glu Ile Ile Gln Val Asp
1040 1045 1050

Asp Asp Ile Asp Ala Asn Gln Phe Leu Gly Asn Ile Asp Gly Gly Asp
1055 1060 1065

Asp Asp Ile Asp Ala Asn Gln Phe Leu Gly Asn Ile Asp Gly Gly Asp

Val Glu Glu Asp Pro Leu Asn Ser Gly Asp Asp Val Ser Glu Gln
 1118 1120 1122 1123

Asp Val Pro Asp Ileu Phe Asp Thr Asp Asn Val Ile Val Cys Gln
 1180 1185 1190

Tyr Asp Lys Ile His Arg Ser Lys Asn Lys Trp Lys Phe Tyr Leu
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Lys Asp Gly Val Met Cys Phe Gly Gly Arg Asp Tyr Val Phe Ala
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atatttcttc tggtatcatg ttccatcttggc ttccatgtata aaaaacacagt tttattqcc 170

• • •

• 211 • 10
• 212 • IKT
• 213 • Homo sapiens

• 500 •

Ala Thr Ile Arg Arg Thr Ser Pro Asn Thr
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30

<210> 16

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<212> PRT

<213> Homo sapien

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Ile Ser His Ile Ser Val Ala Leu
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<210> 17

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<212> PRT

<213> Homo sapien

<400> 17

Met Ala Cys Leu Asn Pro
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113